IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
MIDLAND/ODESSA DIVISION

REDSTONE LOGICS LLC,

Plaintiff,

v.

QUALCOMM INC. and QUALCOMM TECHNOLOGIES, INC.,

Defendants.

Case No. 7:24-cv-00231-ADA-DG

DEFENDANTS QUALCOMM INCORPORATED'S AND QUALCOMM TECHNOLOGIES, INC.'S REPLY CLAIM CONSTRUCTION BRIEF

Table of Contents

I. TERM 1: "the first clock signal is independent from the second clock signal" 1

II. TERM 2: "located in a periphery of the multi-core processor" 6

III. TERM 3: "located in a common region that is substantially central to the first set of processor cores and the second set of processor cores" 8

IV. CONCLUSION 10

TABLE OF AUTHORITIES

Cases **Page(s)**

Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC,
677 F.3d 1361 (Fed. Cir. 2012).....10

Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prods. Grp., LLC,
879 F.3d 1332 (Fed. Cir. 2018).....10

Lasermarx, Inc. v. Hamskea Archery Sols. LLC,
Civil Action No. 22-cv-01956-NYW-KAS, 2024 U.S. Dist. LEXIS 51833 (D. Colo. Mar. 22, 2024).....5

Merck & Co. v. Teva Pharms. USA, Inc.,
395 F.3d 1364 (Fed. Cir. 2005).....7

Nautilus, Inc. v. Biosig Instruments, Inc.,
572 U.S. 898 (2014).....6, 8, 9

Phillips v. AWH Corp.,
415 F.3d 1302 (Fed. Cir. 2005).....7

Redstone Logics LLC v. NXP USA, Inc.,
Case No. 7:24-cv-00028-ADA-DTG (W.D. Tex. 2024) ..... iv, 1, 10

Seagen Inc. v. Daiichi Sankyo Co.,
No. 2:20-CV-00337, 2021 U.S. Dist. LEXIS 174566 (E.D. Tex. Sep. 14, 2021) 5

Southwall Techs., Inc. v. Cardinal IG Co.,
54 F.3d 1570 (Fed. Cir. 1995).....4

Speedtrack, Inc. v. Amazon.com, Inc.,
998 F.3d 1373 (Fed. Cir. 2021).....3

Univ. of S. Fla. v. United States,
146 Fed. Cl. 274 (2019) 5

TABLE OF EXHIBITS

Exhibit[1]	Description
1	April 4, 2025 Declaration of Dr. John Villasenor in Support of Qualcomm's Opening Claim Construction Brief
A	U.S. Patent No. 8,549,339 ('339 Patent)
B	ON Semiconductor's application note AND8248/D (*Stys*)
C	U.S. Patent No. 7,538,625 (*Cesky*)
D	U.S. Pat. App. Pub. No. 2009/0106576 (*Jacobowitz*)
E	U.S. Pat. App. Pub. No. 2009/0138737 (*Kim*)
F	'339 Patent file history excerpt: Office Action (Aug. 29, 2012)
G	'339 Patent file history excerpt: Examiner Interview (Nov. 27, 2012)
H	'339 Patent file history excerpt: Applicant's Response to Office Action (Nov. 29, 2012)
2	Excerpt from Redstone's Responsive Claim Construction Brief filed in *Redstone Logics LLC v. NXP USA, Inc.*, Case No. 7:24-cv-00028-ADA-DTG, (W.D. Tex. 2024) ("*NXP Litigation*")
3	Excerpt from Claim Construction Order in the *NXP Litigation*
4	Excerpt from Redstone's *Markman* hearing presentation in the *NXP Litigation*
5	Excerpt from the *Markman* hearing transcript in the *NXP Litigation*
6	*The First Six-Core Intel Xeon Microprocessor* excerpted from THE INTEL TECHNOLOGY JOURNAL, Volume 12, Issue 3, 2008

[1] Exhibits 1–5 and A–H are exhibits to Qualcomm's Opening Brief and are Docket Nos. 27-1 through 27-13. And, as noted in Qualcomm's Opening Brief, Exhibits A through H are exhibits to the April 4, 2025 Declaration of Dr. John Villasenor in Support of Qualcomm's Opening Claim Construction Brief (Ex. 1, Dkt. 27-1).

Plaintiff's Responsive Claim Construction Brief (Dkt. 28, "Response") ignores substantive positions raised in Qualcomm's Opening Claim Construction Brief (Dkt. 27, "Opening") in favor of arguments that have no bearing on the issues at hand. The Response does not mitigate the Applicant's prosecution disclaimer nor the indefiniteness of certain claim terms.

I. TERM 1: "the first clock signal is independent from the second clock signal"

As an initial matter, Redstone addresses the ***wrong*** construction for the Independent Term, as it incorrectly contends Qualcomm's proposed construction is: "Plain and ordinary, meaning, where the plain and ordinary meaning requires that the first and second clock signals ***are provided by or processed (i.e., divided or multiplied)*** from different reference oscillator clocks." Resp. at 1.[2] While the defendant in the separate *NXP Litigation* proffered this construction (Ex. 2 at 2), Qualcomm's proposed construction is simpler: "Plain and ordinary meaning, which requires that the first and second clock signals ***depend*** from different reference oscillator clocks."

Aside from addressing the wrong construction, Redstone is unable to articulate a consistent position on the Independent Term. Redstone contends that it "does not argue 'independent' should be construed to mean 'different'[.]" Resp. at fn. 3. But this is the opposite of what Redstone told this Court a few weeks ago in the *NXP Litigation*: "If the Court finds that 'independent' needs clarification—it does not—it merely means 'different'" and "'independent' is best understood as simply meaning 'different.'" Ex. 2 at 7, 2. Redstone's shapeshifting arguments underscore that, respectfully, the construction of "plain and ordinary meaning" in the *NXP Litigation* does not provide sufficient clarity. Resp. at 2.

The intrinsic record plainly demonstrates that the concept of "independent" requires more than different signals. Indeed, the Applicant disclaimed mere different signals, and Redstone's

[2] All emphases added unless otherwise noted.

post-hoc attempt to undo the prosecution disclaimer fails. The Applicant unequivocally stated that *Kim's* "single clock source" split into multiple signals and "processed" to generate ***different*** first and second clocks does not meet the independent requirement:

File History – Response to Office Action 8/29/2012

In addition, *Kim* also fails to disclose or teach a first set of processor cores and second set of processor cores configured to dynamically receive a first output clock signal of a first PLL having a first clock signal as input and a second output clock signal of a second PLL having a second clock signal, respectively. In addition, the first clock signal is independent from the second clock signal. Instead, *Kim* discloses the apparatus comprising a multi-core processor (i.e., 100 in FIG. 1 or 200 in FIG. 2) having a single clock source (i.e., 170 in FIG. 1 or 270 in FIG. 2). The clock signal from this single clock source is then processed (i.e., divided or multiplied) and provided to each of the cores. See *Kim*, paragraphs [0024]-[0025] and FIGs 1 – 2.

Ex. H at 10–11 (annotated); Opening at 10–11. This alone fully undermines Redstone's position. Qualcomm's Opening explains in detail why a POSITA understands—and common sense dictates—that two clock signals dependent upon a single input source cannot be independent. Opening at 5–8; Fig. A.

Redstone's litany of arguments are wholly irrelevant to the parties' claim construction dispute and are unavailing.

First, Redstone incorrectly contends that "Qualcomm asks the Court to consider a third signal that it contends both signals cannot both depend from together." *Id*. The Applicant itself chose to amend its claims to include "independent" clocks, and Qualcomm correctly points out that two clocks derived from the same source are not independent. When "independent" is properly construed, Redstone's "third signal" strawman falls away, as the first and second clocks depend from different reference oscillator clocks.

Second, Redstone goes into great detail describing the Applicant's efforts to distinguish the *Jacobowitz* reference, which is not even the basis of Qualcomm's claim construction position. Had the Applicant amended its claim to merely require "different," as opposed to independent,

signals, that hypothetical amendment would be consistent with Redstone's description of *Jacobowitz*. However, arguments that the Applicant made regarding *Jacobowitz*'s less restrictive clock architecture have no relevance to the Applicant's separate argument regarding *Kim*—including statements resulting in disclaimer of merely "different" signals. Ex. H at 10–11. Additionally, Redstone's contention as to what the Examiner "found" regarding *Jacobowitz* and different/independent is unsupported by the Examiner's interview summary. *See* Ex. G. The claims before the Examiner and discussed in the interview summary did not include the "independent" limitation, and the examiner took no position on whether adding "different" or "independent" to the claims would overcome *Jacobowitz* let alone distinguish *Kim*. *Id.* (noting Applicant's representative "would discuss amends [sic] to the claims with applicant" without identifying any amendment).

Third, Redstone's focus on Applicant's argument that *Kim* lacked sets of cores or independent voltages (Resp. at 4–5) does not expunge the Applicant's disclaimer in the separate argument regarding the clock structure disclosed in *Kim*. As the Federal Circuit has repeatedly held, "[a]n applicant's argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well." *Speedtrack, Inc. v. Amazon.com, Inc.*, 998 F.3d 1373, 1380 (Fed. Cir. 2021) (quotation omitted). Redstone contends that the Applicant argued that without sets of cores in *Kim*, there can be none of the claimed signals (Resp. at 5). But whether *Kim* discloses sets of cores is immaterial to the Applicant's argument that Kim's "single clock source" arrangement does not satisfy the claims' independent clock requirement. *See* Opening at 9–10.

Fourth, Redstone's argument that "the Examiner never considered Kim as part of an obviousness ground for the independent claims" is equally irrelevant. Resp. at fn. 5. Whether the

Examiner's rejection based on *Kim* was in the context of a ***pre-amendment*** independent or dependent claim is of no moment. What matters is the Applicant's unambiguous characterization: *Kim's* "single clock source" architecture does not include the independent clock limitation that ***the Applicant added to the independent claim***. Ex. H at 10–11 (annotated); Opening at 10–11; *see Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1584 (Fed. Cir. 1995) (that the patentee "might have made the arguments distinguishing" the prior art "to versions of the claims not now at issue does not avoid those arguments limiting later or different versions of the claims").

Qualcomm's Opening provided a demonstrative example depicting signals that are ***different*** but ***not independent***, referred to as a "single reference oscillator approach." Opening at 6–7; Fig. A. Although Redstone decries this example as "meritless and unsupported," among many other unwarranted pejoratives (Resp. at 6, 7), this example is not unlike *Kim*'s single clock source. *Kim* discloses a single reference oscillator approach that bears striking similarity to Qualcomm's Figure A example. *See* Opening at 9.

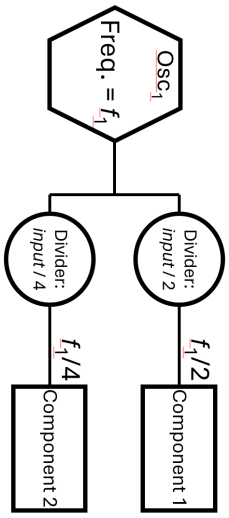
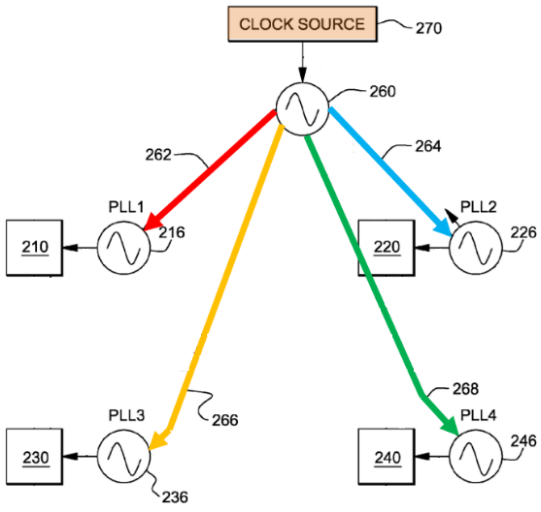


Figure A (Opening at 6, rotated)



***Kim* Figure 2** (Opening at 9, annotated with relevant clock architecture excerpted)

The comparison above shows both Qualcomm's Figure A example and *Kim*'s Figure 2 with a single point of origin for the clock—Osc$_1$ and clock source 270, respectfully. The single

clock signal is split into multiple branches (*e.g.*, by *Kim's* PLL 260, which optionally adjusts the clock frequencies) and is fed into frequency adjusting circuitry—generic dividers in Figure A, and PLL1, PLL2, PLL3, and PLL4 in *Kim*. The resulting clock signals are inputs to Figure A's Components 1 and 2 and to *Kim's* cores 210, 220, 230 and 240. In short, Qualcomm's exemplary single reference oscillator approach discloses the very architecture of *Kim* that the Applicant distinguished to secure allowance.

To combat Qualcomm's Figure A example and, in turn, the disclaimer as to *Kim*, Redstone manufactures an argument about a hypothetical system that "actively negate[s] any changes in the reference oscillator frequency." Resp. at 7–8. Such attorney argument lacks support from any prior art reference, expert declaration, or any detail on how such active negation could be implemented and is of no import. *See Seagen Inc. v. Daiichi Sankyo Co.*, No. 2:20-CV-00337, 2021 U.S. Dist. LEXIS 174566, at *49 (E.D. Tex. Sep. 14, 2021) (declining to adopt constructions that "do not look to what one of ordinary skill in the art would understand the term to mean and instead relies solely on attorney argument for its interpretation"); *Lasermarx, Inc. v. Hamskea Archery Sols. LLC*, Civil Action No. 22-cv-01956-NYW-KAS, 2024 U.S. Dist. LEXIS 51833, at *42 (D. Colo. Mar. 22, 2024) (rejecting a claim construction position that is "is pure attorney argument, not moored in any expert testimony or prior art references"; quoting *Univ. of S. Fla. v. United States*, 146 Fed. Cl. 274, 294 (2019) ("Unsubstantiated attorney argument regarding the meaning of technical evidence is no substitute for competent, substantiated expert testimony.")).

The plain and ordinary meaning of "independent" requires more than merely "different" signals." Only Qualcomm's proposed clarification of the plain and ordinary meaning of the Independent Term properly accounts for the prosecution history of the '339 Patent and is consistent with the plain and ordinary meaning as understood by a POSITA. Accordingly, Qualcomm's

proposed construction should be adopted.

II. TERM 2: "located in a periphery of the multi-core processor"

The term "located in a periphery of the multi-core processor" is indefinite as a POSITA cannot determine with reasonable certainty when a component is "located in a periphery" and when it is not. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

Redstone relies heavily on the simplified and idealized "array" processor arrangement shown in Figure 1 of the '339 Patent, which it admits illustrates only one "example of a 'multi-core processor.'" Resp. at 9. Based on the specification's description of Figure 1's control blocks "arranged at two different sides of the multi-core processor," Redstone claims that the specification "clarifies the metes and bounds of the multi-core processor, placing the control blocks at its edge or periphery." Resp. at 9 (citing the '339 Patent at 2:34–36). But Qualcomm and Dr. Villasenor have already explained why that is not the case. Opening at 13–16; Dkt. 27-1 at ¶¶ 58–73. Rather than substantively addressing which of the depicted potential peripheries identified by Dr. Villasenor is applicable (if any), the Response attempts to undercut the illustrative architectures and expert testimony that highlight this term's indefiniteness. *See* Resp. 10–12.

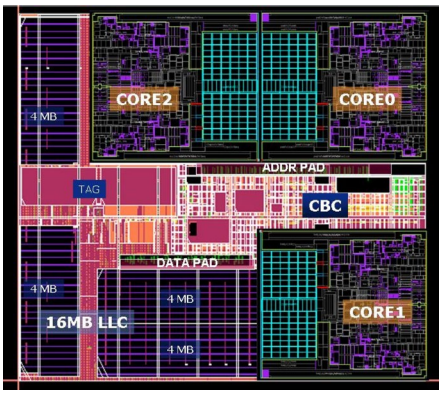
First, Redstone criticizes the "distributed architectures" in Qualcomm's brief (Opening at 14, 15), suggesting they are not "rational and useful" as they depict "no apparent power, data, or frequency inputs." Resp. at 10, 11 (alleging the architecture in Figs. F and G of Dkt. 27-1 "is still deficient"). But the same is true of the "multi-core processor" depicted in Figure 1 of the '339 Patent; in fact, the sets of cores illustrated in Dr. Villasenor's Figure E are taken directly from Figure 1. *Compare* Dkt. 27-1, Fig. E *with* '339 Patent, Fig. 1. The example in Dr. Villasenor's Figures F and G additionally illustrates the "interface block" absent from Figure 1 of the '339 Patent. *Compare* Dkt. 27-1, Figs. F, G *with* '339 Patent, Fig. 1. The supposedly missing power and frequency inputs are provided by the very control blocks that Claim 5 requires be "located in a

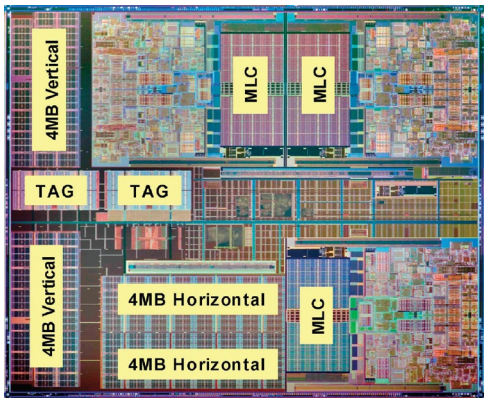
periphery of the multi-core processor"—*i.e.*, the components that cannot be placed due to this term's indefiniteness. If the control blocks must be placed before one can identify the claimed "periphery" of the multi-core processor, then control blocks would always be on the periphery, rendering dependent Claim 5 superfluous. *See Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so."). Redstone's attorney argument serves only to distract from the indefiniteness of this term and the deficiency of the specification's disclosure.

Second, Redstone ignores Dr. Villasenor's opinion in contending "Qualcomm has no evidence a POSITA would consider this or any other particular arrangement." Resp. at 10. Dr. Villasenor is a POSITA and has himself considered this arrangement, providing evidence that a POSITA would do so. Dkt. 27-1 at ¶¶ 69, 70. Qualcomm is entitled to rely on its expert's understanding and conclusions. *Phillips v. AWH Corp.*, 415 F.3d 1302, 1318–19 (Fed. Cir. 2005). Indeed, *Phillips* endorses the very "purposes" for which Dr. Villasenor's explanation is offered, *i.e.*, "to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with" a POSITA and to "help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean." *Id*. Dr. Villasenor offers opinions on this term's lack of clarity based on his extensive experience and considerable knowledge as a POSITA (Dkt. 27-1 at ¶¶ 58–73)—opinions which stand unrefuted because Redstone did not provide expert testimony in support of its proposed construction. *See* Resp. at 8–12 (citing no expert opinion). Instead, Redstone provides unsupported attorney argument masquerading as expert opinion for this term in at least five places. *See* Resp. at 8, 10, 11, 12. Redstone should be precluded from arguing without evidentiary support about what a

POSITA "understands," "would expect," or "would consider." *Id*

While Dr. Villasenor's opinions are themselves evidence that the example arrangements are not "unusual," many distributed architectures existed in the industry prior to and at the time of the '339 Patent, including in Intel products such as the depicted Dunnington processor:





Ex. 6 at Figs. 2, 3. The "Dunnington processor die integrates three dual-cores" and other components "in just over 500 mm^2," which presented the "unique physical design challenge[]" of "fitting all of these components into a single die, subject to constraints on the maximum die size, module orientation constraints, and tight timing requirements." *Id.* at 231–32. While Dr. Villasenor was not required to cite evidence supporting his opinion, this is the very type of reference a POSITA would have known about and relied upon at the time of the '339 Patent's filing.

In real-world configurations with sets of processor cores and an interface block spaced apart on the chip, a POSITA could not understand with reasonable certainty what constitutes the "periphery" of such a multi-core processor. Dkt. 27-1 at ¶¶ 68–73; *see also Nautilus*, 572 U.S. at 901. And, with the location of the periphery not reasonably ascertainable, a POSITA cannot know whether a control block is (or is not) "located in a periphery." As such, this phrase is indefinite.

III. TERM 3: "located in a common region that is substantially central to the first set of processor cores and the second set of processor cores"

The term "located in a common region that is substantially central to the first set of

processor cores and the second set of processor cores" is indefinite as it fails to inform a POSITA with reasonable certainty both (1) when a component is "located in a common region" or not, and (2) when the "region" is "substantially central" or not. *See Nautilus*, 572 U.S. at 901.

With respect to "located in a common region," the specification of the '339 Patent is not as "clear[]" as Redstone contends. Resp. at 13. Redstone appears to define "region" as a "subdivision of the multi-core processor containing the claimed sets of processor cores" based on portions of the specification that focus exclusively on ***processor cores***. *Id.* (citing '339 Patent at 2:20–27, cl. 8). Notably, these portions of the specification do not address how a "region" or "common region" should be understood with respect to the processor cores ***and*** control blocks as recited in claim 14. Moreover, as with the "periphery" term, Redstone provides unsupported attorney argument cloaked as expert opinion here, and in at least three other places with respect to this term. *See* Resp. at 13, 15, 16 (arguing without support what a POSITA "would understand" and "consider"). Without support in the specification or the benefit of expert opinion, Redstone can only make mere attorney argument that "[i]n claim 14 ['common region'] refers to the region common to the claimed first and second sets of processor cores and contains the control blocks." Resp. at 13 (citing only cl. 14 itself). This conclusory argument should be disregarded.

Even if Plaintiff's understanding of "common region" were adopted, that only raises further uncertainty and does not resolve the indefiniteness of this term. Redstone claims "it is the 'common region that is substantially central'" rather than the "control blocks." Resp. at 14–15. This grammatic ambiguity highlights the indefiniteness issue. Further, whether considering "control blocks" or a "common region," the same uncertainty exists regarding when ***either*** is, or is not, "substantially central." Indeed, the term "common region" is more abstract than "control blocks," and Redstone's argument compounds the already uncertain claim scope.

It is unsurprising then that Redstone again resorts to mere attorney argument and largely ignores the issue of indefiniteness.[3] Redstone claims without support that "to be substantially central merely requires [the 'common region'] to be ***within the multi-core processor***" (*id.* at 15), and "the control blocks can be ***anywhere*** within the 'common region'" (*id.* at 16). Taken together, Redstone's interpretation means that Claim 14 is satisfied when control blocks are within the multi-core processor, full stop. This gross oversimplification substitutes "multi-core processor" for "common region that is substantially central to the first set of processor cores and the second set of processor cores." Thus, rather than providing a "standard for measuring the term of degree" "substantially central," Redstone's attorney argument removes the term from the claim. Resp. at 14 (citing *Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prods. Grp., LLC*, 879 F.3d 1332, 1346 (Fed. Cir. 2018)). This is not correct and further demonstrates this claim phrase is indefinite.

Finally, Redstone misconstrues Qualcomm's argument regarding "common region" as depending on claim differentiation (Resp. at 13–14); it does not. Claim 14 recites a "common region" while claim 9 recites "overlapping regions"—these different terms should be understood to have different meanings. *Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC*, 677 F.3d 1361, 1369 (Fed. Cir. 2012) ("The general presumption that different terms have different meanings remains." (citation omitted)).

As previously determined in the *NXP Litigation*, this term is indefinite.

IV. CONCLUSION

For the foregoing reasons and as detailed in Qualcomm's Opening, Qualcomm's construction should be adopted and Claims 5 and 14 should be deemed indefinite.

[3] As discussed for the "periphery" term, Dr. Villasenor's opinions and example arrangements, *e.g.*, Figures H and I, are supported by his experience and knowledge as a POSITA and real-world processors. *See supra*, Section II; *see also* Opening at 17–19; *see also* Dkt. 27-1 at ¶¶ 85–88.

Dated: May 9, 2025

Respectfully submitted,

By: */s/ Richard S. Zembek*

Richard S. Zembek (SBN 00797726)
richard.zembek@nortonrosefulbright.com
Daniel S. Leventhal (SBN 24050923)
daniel.leventhal@nortonrosefulbright.com
NORTON ROSE FULBRIGHT US LLP
1550 Lamar Street, Suite 2000
Houston, Texas 77010
Tel: (713) 651-5151
Fax: (713) 651-5246

Eric C. Green (SBN 24069824)
eric.green@nortonrosefulbright.com
Brett A. McKean (SBN 24057994)
brett.mckean@nortonrosefulbright.com
NORTON ROSE FULBRIGHT US LLP
98 San Jacinto Boulevard, Suite 1100
Austin, Texas 78701
Tel: (512) 474-5201
Fax: (512) 536-4598

COUNSEL FOR DEFENDANTS QUALCOMM INCORPORATED AND QUALCOMM TECHNOLOGIES, INC.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing document was served on counsel of record via the Court's electronic filing system on May 9, 2025.

/s/ Richard S. Zembek
Richard S. Zembek